

1 Abstract

3 Systems and methods for generating visual
4 representations of graphical data and digital
5 document processing, including:

6 A method of redrawing a visual display of
7 graphical data whereby a current display is replaced
8 by an updated display, comprising, in response to a
9 redraw request, immediately replacing the current
10 display with a first approximate representation of
11 the updated display, generating a final updated
12 display, and replacing the approximate
13 representation with the final updated display.

14 A method of generating variable visual
15 representations of graphical data, comprising
16 dividing said graphical data into a plurality of
17 bitmap tiles of fixed, predetermined size, storing
18 said tiles in an indexed array and assembling a
19 required visual representation of said graphical
20 data from a selected set of said tiles.

21 A method of processing a digital document, said
22 document comprising a plurality of graphical objects
23 arranged on at least one page, comprising dividing
24 said document into a plurality of zones and, for
25 each zone, generating a list of objects contained
26 within and overlapping said zone.

27 Digital document processing systems adapted to
28 implement the methods.